

**STANDARD CHLORINE CHEMICAL CO. INC. SUPERFUND SITE  
MONTHLY PROGRESS REPORT  
APRIL 2014**

**I. Actions Completed During the Reporting Period (April 2014)**

Preparation of the Pathway Analysis Report (PAR) was completed and submitted to EPA on April 28, 2014.

Preparation of the Candidate Technologies Memorandum (CTM) was completed and submitted to EPA on April 28, 2014.

Preparation of the Screening Level Ecological Risk Assessment (SLERA) continued.

**II. Results of Sampling and Tests and Data Received by Respondents**

No data were received by Respondents during the reporting period.

**III. Work Planned for the Next Two Months (May and June 2014)**

Monthly progress reports will be prepared and submitted to EPA.

Implementation of the RI/FFS Work Plan will continue.

If requested by EPA, the Group will make a presentation of the SCSR Addendum.

Implementation of the Cultural Resources Survey Work Plan will be initiated.

Preparation of the SLERA will be completed. Consistent with the project schedule included in the RI/FFS Work Plan and extension granted by EPA, the SLERA will be submitted to EPA and NJDEP on or before Monday, May 12, 2014. (Note – The current RI/FFS schedule shows that the SLERA is due to be submitted on May 11, 2014, which is a Sunday. As stipulated in the Administrative Order, where a deadline falls on a weekend or Federal holiday, the due date defaults to the next business day.)

**IV. Problems Encountered/Anticipated Delays**

No problems were encountered. No delays are anticipated.

**V. Operations and Maintenance Information**

Routine operations and maintenance activities were completed. A summary of operations and maintenance activities are provided on a quarterly-basis. The summary for the first quarter of 2014 is included as Appendix A of this report.



## **APPENDIX A**

## 1.0 DESCRIPTION OF ACTIVITIES COMPLETED

### 1.1 HYDRAULIC CONTROL TREATMENT SYSTEM (HCTS)

- Continued routine HCTS operation, monitoring, inspection and reporting efforts as summarized below:
  - Average monthly flows for January, February and March 2014 were 23.4 gpm, 23.0 gpm and 20.0 gpm, respectively.
  - The total volume of water treated this reporting period was 2,893,337 gallons.
  - Monthly NJPDES sample collection pursuant to NJ Permit No. NJ0155438 was completed. There were no exceedences of permit monitored constituents noted during this period. Whole Effluent Toxicity (WET) via Method 1002.0 (Mysidopsis Bahia), was reported at  $IC_{25} > 100\%$  growth.
  - Hydraulic Control Wells (HCW) at the end of the first quarter were operating with the exception of HCWU-7, HCWU-8, HCWU-9, and HCWU-11 which, as noted during previous inspections, were found to have subsurface electrical wiring issues which are scheduled to be assessed and repaired upon dewatering of several key electrical pull boxes. Preventative maintenance of the HC groundwater recovery well network hardware (groundwater pump and conveyance line cleaning, level control probe cleaning and testing, and inspection of well electrical supply and control systems) continues to be conducted as needed.
  - DNAPL recovery efforts continued. Passive DNAPL recovery has been the preferred recovery method as DNAPL accumulation rates in subject DNAPL Recovery Wells (DRWs) under non-pumping conditions has historically been significant. Over the past three (3) consecutive quarters however, DNAPL recovery rates appear to have slightly diminished.
  - Gauging data collected during the reporting period from the piezometers are provided in Table 1. Despite infiltrating precipitation, water level data trends are favorable in general and continue to indicate progress in achieving sustained inward gradients across the slurry wall. A graph showing historical groundwater gradient data is provided as Figure 1 of this submittal.

Figures 2 and 3 provide January 2014 potentiometric surface data (representing the most typical HCTS operational scenario for the reporting period), for both the shallow and deep monitoring zones respectively. Figure 2 shows pronounced gradients toward HCW's across the site within the shallow fill unit as well as a significant differential between inner and outer slurry wall piezometer pairs, indicating that the slurry wall is functioning as an effective hydraulic barrier. Potentiometric surface contours for the deep sand unit are provided on Figure 3. As indicated, the hydraulic gradient in the sand unit is essentially flat over the western two-thirds of the area enclosed by the barrier wall system. Slightly higher potentiometric surface elevations were measured on the unpaved Seaboard Site which could be indicative of localized recharge. Similar to the shallow unit, substantial differentials between the water levels inside and outside of the slurry wall exist which is an indication of the lack of hydraulic communication and groundwater flux through the barrier wall in the deep sand unit.

Figures 4, 5 and 6 present graphs of the monthly (January, February and March 2014, respectively) water level measurements made in the shallow unit piezometers inside and outside of the slurry wall and the nearest hydraulic control well. The graphs show that hydraulic gradients inside the barrier wall are away from the barrier wall toward the hydraulic control wells. The graphs also show that substantial differentials between the water levels inside and outside of the slurry wall exist. Such differentials are indicative of a lack of hydraulic communication between the fill unit inside and outside of the barrier wall and are demonstrative of the effective containment resulting from the low permeability barrier wall system.

## 1.2 DNAPL RECOVERY

Passive DNAPL recovery efforts for the first quarter of 2014 produced 298 gallons of DNAPL from DRWL-11. A total of 4,254 gallons of DNAPL have been recovered from the DNAPL recovery well network since January 2012. Total DNAPL recovery to date is provided in the summary table below.

STANDARD CHLORINE CHEMICAL CO. INC. SITE– O&M STATUS REPORT  
QUARTERLY OPERATIONS MAINTENANCE AND MONITORING REPORT No. 05  
REPORTING PERIOD –JANUARY – MARCH 2014  
KEARNY, NEW JERSEY

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Well ID	January 2014 DNAPL Recovery (gal)	February 2014 DNAPL Recovery (gal)	March 2014 DNAPL Recovery (gal)	Total DNAPL Recovered (gal)
DRWL-9	NR	NR	NR	856
DRWL-11	143	87	68	2,766
DRWL-5	NR	NR	NR	265
DRWL-7	NR	NR	NR	50
DRWL-1	NR	NR	NR	262
DRWL-10	NR	NR	NR	55

- DNAPL Recovery Well Gauging data for this period are provided in Table 2.

### 1.3 NON-HCTS INSPECTIONS

- Continued post-construction inspections.

### 1.4 ADDITIONAL COMPLETED EFFORTS

- None to report this period.

## 2.0 PROJECTED FUTURE ACTIVITIES

### 2.1 HCTS RELATED EFFORTS

- Continue routine HCTS operations, monitoring and maintenance.
- Revisions to the HCTS Treatment Works Approval Permit (NJDEP, TWA 10-0064 – February 2010), to address continued treatment of influent groundwater via the T-PH-01 flash mix  $\text{Cr}^{\text{VI}}$  method. This modification routes all influent groundwater streams into T-PH-01 which now serves as the flash mix tank for the  $\text{Cr}^{\text{VI}}$  reduction treatment process. Notification of this change to the flow of recovered groundwater through the  $\text{Cr}^{\text{VI}}$  reduction treatment process as well as a revised block flow diagram illustrating the change was submitted to NJDEP via email on March 18, 2014.
- Continue dewatering of electrical pull boxes to assess and repair electrical runs from the HCTS building to individual HC and DR well control panels.

- Passive DNAPL recovery will continue using the 5 feet minimum threshold of accumulated DNAPL for conducting recovery.

## **2.2 NON-HCTS RELATED EFFORTS**

- Routine Non-HCTS (consolidation area and IRM surface covers) inspections and maintenance will continue.
- Soil erosion areas and re-vegetation issues will be addressed, as necessary.
- Quarterly inspections of the surface cover systems and repair (as necessary) will continue.
- Vegetative ground cover will be maintained and scheduled mowing of the various vegetative cover areas will be conducted.
- Bulged asphalt area repairs associated with previously installed bentonite check plugs along subgrade hydraulic well conveyance lines is scheduled to commence upon the onset of favorable weather.
- Herbicide treatments, as part of the invasive species abatement program for the freshwater wetland area, will continue.
  - Areas of freshwater wetland on the SCCC site which previously were treated with herbicide to eradicate invasive phragmites are scheduled for replanting and goose fence replacement beginning in May of 2014.

**STANDARD CHLORINE CHEMICAL CO. INC. SITE- O&M STATUS REPORT**  
**QUARTERLY REPORT No. 05**  
**REPORTING PERIOD -JANUARY - MARCH 2014**  
**KEARNY, NEW JERSEY**

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**TABLES**



Table 1

Standard Chlorine Chemical Company  
1st Quarter 2014 Progress Report

Piezometer Gauging Data Summary

Well ID	Top of Casing Elevation MSL (NAD 83)	Jan-14			Feb-14			Mar-14		
		Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)	Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)	Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)
HC-PZ-1U	11.18	7.60	16.73	3.58	7.56	16.73	3.62	6.61	16.74	4.57
HC-PZ-2U	11.32	7.50	16.10	3.82	7.09	16.10	4.23	6.44	16.10	4.88
HC-PZ-3U	10.33	6.40	15.02	3.93	7.26	15.02	3.07	5.91	14.95	4.42
HC-PZ-4U	10.16	3.45	14.65	6.71	4.34	14.65	5.82	3.53	14.61	6.63
HC-PZ-6U	7.15	1.13	9.44	6.02	1.67	9.44	5.48	1.30	9.44	5.85
HC-PZ-7U	6.51	0.28	8.88	6.23	0.93	8.88	5.58	0.48	8.88	6.03
HC-PZ-8U	7.75	0.87	11.90	6.88	2.24	11.90	5.51	1.86	11.90	5.89
HC-PZ-9U	8.18	2.38	12.21	5.80	3.53	12.21	4.65	2.69	12.23	5.49
HC-PZ-10U	6.05	3.32	9.51	2.73	3.75	9.51	2.30	3.00	9.50	3.05
HC-PZ-11U	6.3	4.68	9.80	1.62	4.84	9.80	1.46	4.60	9.85	1.70
HC-PZ-12U	5.35	2.25	8.42	3.10	2.9	8.42	2.45	2.02	8.44	3.33
HC-PZ-13U	4.76	2.30	8.40	2.46	2.82	8.40	1.94	2.13	8.39	2.63
HC-PZ-14U	6.03	2.16	10.07	3.87	2.38	10.07	3.65	2.04	10.05	3.99
HC-PZ-15U	8.28	5.09	11.72	3.19	5.45	11.72	2.83	5.11	11.71	3.17
HC-PZ-1L	11.48	7.70	25.10	3.78	8.02	25.10	3.46	7.58	25.10	3.90
HC-PZ-2L	12.15	8.82	24.15	3.33	9.00	24.15	3.15	8.83	24.02	3.32
HC-PZ-3L	9.97	6.18	23.53	3.79	6.48	23.53	3.49	5.95	23.51	4.02
HC-PZ-4L	9.17	6.45	20.55	2.72	6.67	20.55	2.50	6.45	20.55	2.72
HC-PZ-6L	6.06	3.16	16.88	2.90	3.52	16.88	2.54	3.11	16.88	2.95
HC-PZ-7L	5.5	0.89	17.00	4.61	1.39	17.00	4.11	1.01	17.00	4.49
HC-PZ-8L	8.3	3.22	21.50	5.08	3.86	21.50	4.44	3.17	21.50	5.13
HC-PZ-9L	8.57	3.42	21.00	5.15	4.45	21.00	4.12	3.69	21.00	4.88
HC-PZ-10L	5.8	2.26	18.76	3.54	2.75	18.76	3.05	2.14	18.74	3.66
HC-PZ-11L	6.91	4.90	19.10	2.01	5.22	19.10	1.69	4.82	19.08	2.09
HC-PZ-12L	5.07	1.46	15.78	3.61	1.94	15.78	3.13	1.41	15.77	3.66
HC-PZ-13L	4.77	2.70	16.24	2.07	3.11	16.24	1.66	2.60	16.25	2.17
HZ-PZ-14L	6.43	2.61	18.89	3.82	3.04	18.89	3.39	2.61	18.90	3.82
SC-MW-16L	8.02	4.99	19.82	3.03	5.3	19.82	2.72	4.90	19.81	3.12



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		Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)	Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)	Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)
HCWU-1	10.30	11.65	13.70	-1.35	11.57	10.59	-1.27	11.72	13.60	-1.42
HCWU-2	10.91	8.25	14.10	2.66	11.75	14.10	-0.84	10.75	14.40	0.16
HCWU-3	9.85	12.40	14.01	-2.55	5.70	14.02	4.15	9.75	13.90	0.10
HCWU-4	8.54	9.35	13.28	-0.81	11.35	13.34	-2.81	9.08	13.00	-0.54
HCWU-5	8.16	5.65	12.57	2.51	6.61	12.55	1.55	4.80	12.51	3.36
HCWU-6	5.84	3.92	10.35	1.92	4.22	10.36	1.62	4.12	10.36	1.72
HCWU-7	5.52	6.80	8.75	-1.28	-0.08	8.75	5.60	0.96	8.73	4.56
HCWU-8	5.65	7.40	11.92	-1.75	0.00	11.91	5.65	0.61	11.90	5.04
HCWU-9	5.66	5.00	7.00	0.66	-0.25	7.00	5.91	0.29	6.98	5.37
HCWU-10	4.28	2.45	7.60	1.83	1.45	7.60	2.83	2.70	7.68	1.58
HCWU-11	5.96	2.22	8.40	3.74	0.62	8.40	5.34	1.39	8.40	4.57
HCWU-12	5.26	5.55	8.20	-0.29	1.02	8.20	4.24	6.05	8.20	-0.79
HCWU-13	4.14	6.22	7.80	-2.08	0.09	7.80	4.05	5.25	7.85	-1.11
HCWU-14	2.95	-0.68	5.44	3.63	-0.88	5.45	3.83	-0.61	5.23	3.56
HCWU-15	4.44	1.16	8.75	3.28	0.83	8.75	3.61	1.16	8.78	3.28
HCWU-16	3.98	-0.38	8.50	4.36	0.11	8.50	3.87	0.55	8.50	3.43
HCWU-17	3.31	-0.60	7.55	3.91	-0.65	7.54	3.96	-0.39	7.52	3.70
HCWU-18	3.16	-0.79	6.45	3.95	-1.00	6.45	4.16	-0.79	6.51	3.95
HCWU-19	2.97	-0.87	8.30	3.84	-0.89	8.29	3.86	-0.82	8.40	3.79
HCWU-20	3.32	2.03	7.51	1.29	0.79	7.50	2.53	0.57	7.15	2.75
HCWU-21	13.41	12.31	17.33	1.10	14.22	17.34	-0.81	12.20	16.60	1.21
HCWU-22	4.99	2.90	9.73	2.09	4.25	9.74	0.74	2.75	9.79	2.24
HCWU-23	12.51	14.41	16.30	-1.90	11.95	16.30	0.56	12.51	16.30	0.00
HCWU-24	8.78	7.36	13.25	1.42	3.68	13.25	5.10	8.38	13.20	0.40
HCWU-25	12.47	14.35	16.25	-1.88	14.35	16.25	-1.88	13.96	16.39	-1.49
HCWU-26	9.58	12.39	14.40	-2.81	5.06	14.40	4.52	12.37	14.40	-2.79



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		Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)	Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)	Depth to Water (ft-TOC)	Total Depth (ft- TOC)	Groundwater Elevation MSL (NAD 83)
DRWU-1	5.17	1.07	10.68	4.10	0.79	10.65	4.38	1.04	10.66	4.13
DRWU-2	5.63	1.50	11.79	4.13	1.20	11.80	4.43	1.46	11.78	4.17
DRWU-3	16.13	11.88	22.35	4.25	11.41	22.35	4.72	11.61	22.35	4.52
DRWU-4	4.71	0.64	12.12	4.07	0.31	12.12	4.40	0.57	12.15	4.14
DRWU-5	2.80	-0.87	8.82	3.67	-1.31	8.82	4.11	-1.05	8.82	3.85
DRWL-1	7.35	2.93	31.90	4.42	2.75	31.90	4.60	3.17	31.90	4.18
DRWL-2	3.09	0.42	26.97	2.67	-0.61	26.97	3.70	-0.44	26.95	3.53
DRWL-3	3.87	0.02	28.87	3.85	-0.15	28.87	4.02	0.03	28.87	3.84
DRWL-4	5.65	1.81	30.50	3.84	0.45	30.50	5.20	1.87	30.45	3.78
DRWL-5	5.74	0.26	29.65	5.48	-0.21	29.65	5.95	1.02	29.65	4.72
DRWL-6	17.36	13.20	40.80	4.16	12.75	40.82	4.61	13.32	40.82	4.04
DRWL-7	2.76	-1.10	27.15	3.86	-1.16	27.15	3.92	-0.97	27.15	3.73
DRWL-8	3.17	-0.70	28.65	3.87	-0.86	28.65	4.03	-0.76	28.65	3.93
DRWL-9	4.69	0.54	28.30	4.15	0.31	28.30	4.38	0.59	28.30	4.10
DRWL-10	6.46	2.12	30.60	4.34	2.62	30.60	3.84	2.90	30.60	3.56
DRWL-11	9.05	5.59	33.15	3.46	5.15	33.15	3.90	5.60	33.15	3.45



Table 2

Standard Chlorine Chemical Company  
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DNAPL Well Gauging Data

Recovery Well ID	Jan-14				Feb-14				Mar-14			
	Depth to Water (ft TOC)	Depth to Product (ft TOC)	Product Thickness (ft)	Total Depth (ft TOC)	Depth to Water (ft TOC)	Depth to Product (ft TOC)	Product Thickness (ft)	Total Depth (ft TOC)	Depth to Water (ft TOC)	Depth to Product (ft TOC)	Product Thickness (ft)	Total Depth (ft TOC)
DRWU-1	1.07	NP	NA	10.68	0.79	NP	NA	10.65	1.04	NP	NA	10.66
DRWU-2	1.50	NP	NA	11.79	1.20	NP	NA	11.80	1.46	NP	NA	11.78
DRWU-3	11.88	22.34	Trace	22.35	11.41	22.34	0.01	22.35	11.61	22.15	0.20	22.35
DRWU-4	0.64	NP	NA	12.12	0.31	NP	NA	12.12	0.57	NP	NA	12.15
DRWU-5	-0.87	NP	Trace	8.82	-1.31	NP	NA	8.82	-1.05	NP	NA	8.82
DRWL-1	2.93	29.50	2.40	31.90	2.75	28.05	3.85	31.90	3.17	27.95	3.95	31.90
DRWL-2	0.42	26.97	Trace	26.97	-0.61	26.97	Trace	26.97	-0.44	26.95	Trace	26.95
DRWL-3	0.02	28.77	0.10	28.87	-0.15	28.77	0.10	28.87	0.03	28.77	0.10	28.87
DRWL-4	1.81	30.25	0.25	30.50	0.45	30.25	0.25	30.50	1.87	30.20	0.25	30.45
DRWL-5	0.26	24.95	4.70	29.65	-0.21	24.93	4.72	29.65	1.02	26.05	3.60	29.65
DRWL-6	13.20	39.70	1.10	40.80	12.75	39.70	1.12	40.82	13.32	NP	NA	40.82
DRWL-7	-1.10	26.45	0.70	27.15	-1.16	26.45	0.70	27.15	-0.97	NP	NA	27.15
DRWL-8	-0.70	NP	NA	28.65	-0.86	NP	NA	28.65	-0.76	NP	NA	28.65
DRWL-9	0.54	27.05	1.25	28.30	0.31	25.70	2.60	28.30	0.59	27.20	1.10	28.30
DRWL-10	2.12	27.10	3.50	30.60	2.62	26.82	3.78	30.60	2.90	27.55	3.05	30.60
DRWL-11	5.59	22.35	10.80	33.15	5.15	26.45	6.70	33.15	5.60	27.95	5.20	33.15

## Notes:

" - " indicates measurement of water level in well vault above recovery well TOC

NP indicates no DNAPL encountered during gauging efforts

NA indicates not applicable

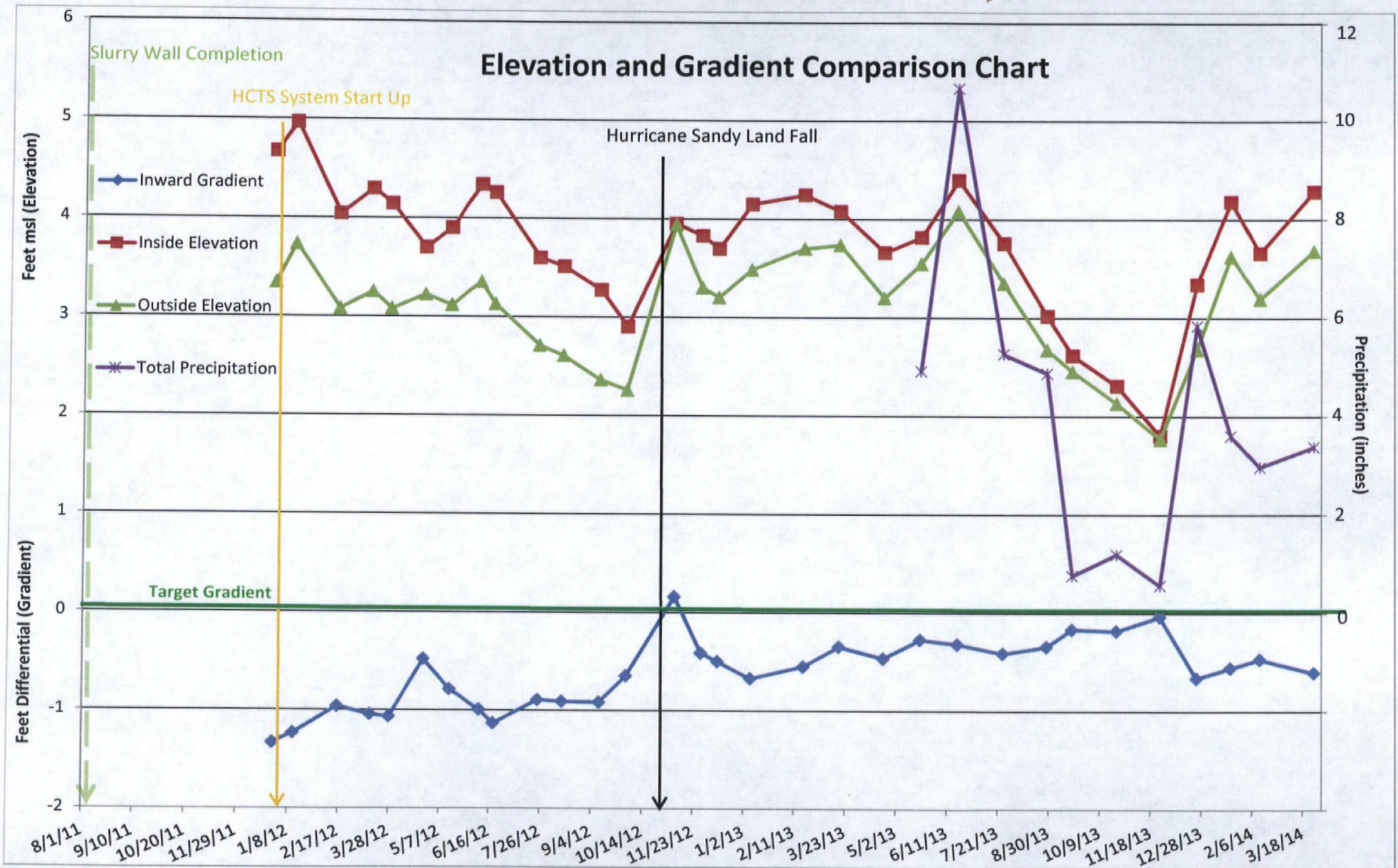
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**FIGURES**

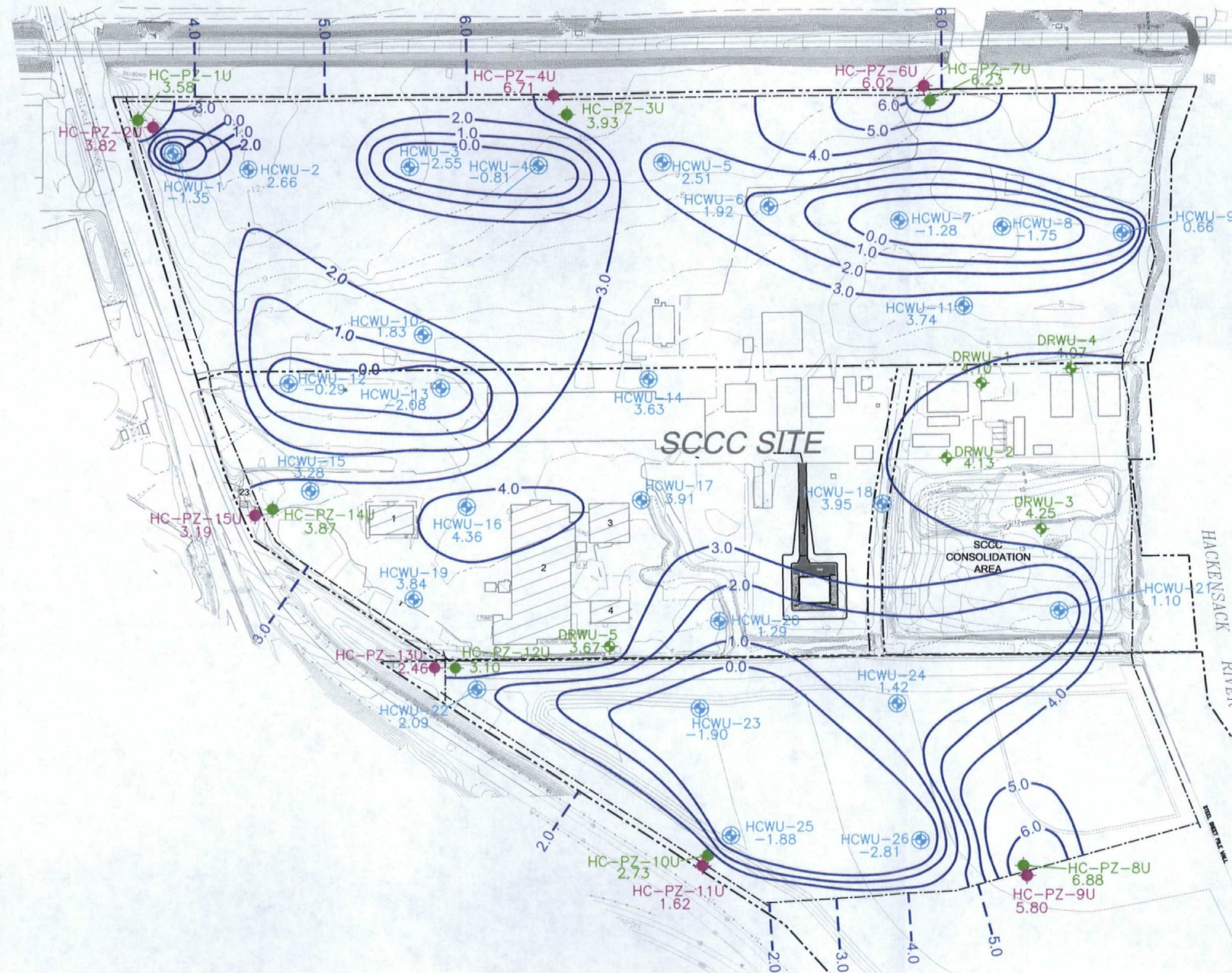


Figure 1  
Standard Chlorine Chemical Company  
1st Quarter 2014 Progress Report



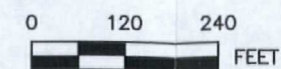


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### LEGEND

- EXISTING ACCESS ROAD
- EXISTING NEW JERSEY TRANSIT RAILROAD (ACTIVE)
- EXISTING FENCE
- PROPERTY BOUNDARY
- EXISTING GROUND SURFACE ELEVATION CONTOURS
- EXISTING STREAM, POND AND RIVER BANK
- EXISTING STRUCTURE
- SLURRY WALL LOCATION
- FILL UNIT GROUNDWATER EXTRACTION (HYDRAULIC CONTROL) WELL LOCATION - UPPER ZONE
- FILL UNIT DNAPL RECOVERY WELL LOCATION - UPPER ZONE
- HYDRAULIC CONTROL PIEZOMETER UPPER ZONE - OUTSIDE WALL
- HYDRAULIC CONTROL PIEZOMETER UPPER ZONE - INSIDE WALL
- 1.10 GROUNDWATER ELEVATION
- 1.0 GROUNDWATER ELEVATION CONTOUR



REV	DATE	DESCRIPTION	APPD

REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).

ISSUE DATE:

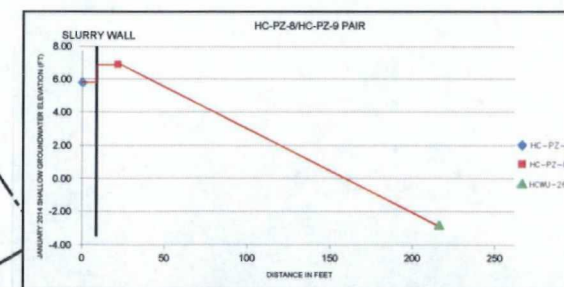
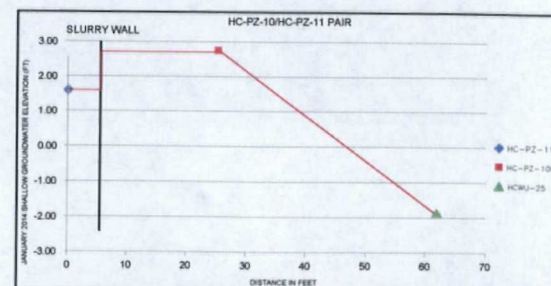
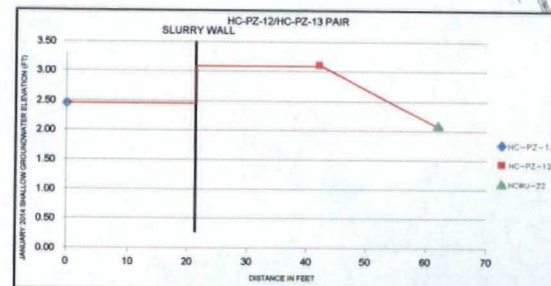
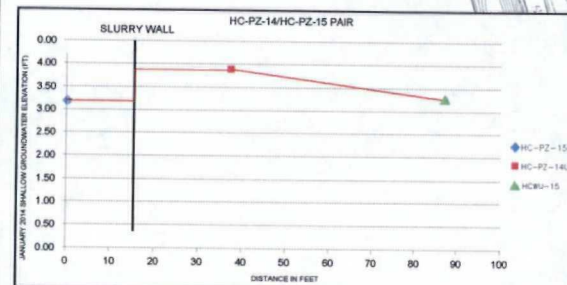
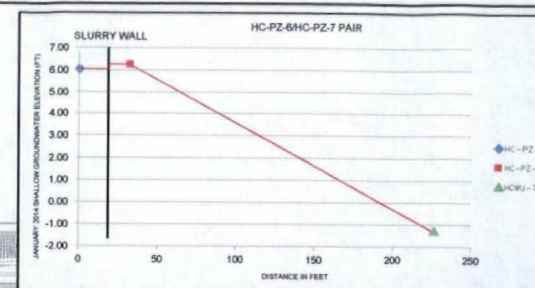
KEY ENVIRONMENTAL, INC.  
200 THIRD AVENUE  
CARNEGIE, PA 15108





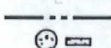








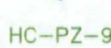








PENINSULA RESTORATION GROUP			
DRWN: SCC	DATE: 04/30/14	<b>KEY</b> ENVIRONMENTAL INCORPORATED	PROJECT NO: 2014
CHKD: MV	DATE: 04/30/14		
APPD: JSZ	DATE: 04/30/14		
SCALE: AS SHOWN			
SCCC SITE KEARNY, NEW JERSEY			
GROUNDWATER ELEVATION CONTOURS SURFICIAL FILL UNIT- JANUARY 2014			FIGURE 2









- # LEGEND
- |   |  |
|---|--|
|    | EXISTING ACCESS ROAD   |
|    | EXISTING NEW JERSEY TRANSIT RAILROAD (ACTIVE)                      |
|    | EXISTING FENCE   |
|    | EXISTING WATER LINE  |
|    | EXISTING STORM DRAIN   |
|    | EXISTING STORM SEWER   |
|    | EXISTING GAS LINE  |
|    | EXISTING OVERHEAD POWER LINE                                       |
|    | PROPERTY BOUNDARY  |
|    | EXISTING CONCRETE PAD  |
|    | EXISTING GROUND SURFACE ELEVATION CONTOURS                         |
|    | EXISTING VEGETATION  |
|   | EXISTING STREAM, POND AND RIVER BANK                               |
|  | EXISTING ELEVATION (FEET-MSL)                                      |
|  | EXISTING STRUCTURE   |
|  | SLURRY WALL LOCATION   |
|  | STEEL SHEET PILE WALL LOCATION                                     |
|    | FILL UNIT GROUNDWATER EXTRACTION (HYDRAULIC CONTROL) WELL LOCATION |
|    | FILL UNIT DNAPL RECOVERY WELL LOCATION                             |
|   | SAND UNIT DNAPL RECOVERY WELL LOCATION                             |
|  | HC-PZ-9U HYDRAULIC CONTROL PIEZOMETER UPPER ZONE (APPROX.)         |
|  | HC-PZ-9L HYDRAULIC CONTROL PIEZOMETER LOWER ZONE (APPROX.)         |

PENINSULA RESTORATION GROUP

DRWN: SCC	DATE: 05/01/14
CHKD: RMW	DATE: 05/01/14
APPD: JSZ	DATE: 05/01/14
SCALE: AS SHOWN	

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INCORPORATED

SCCC SITE  
KEARNY, NEW JERSEY

GROUNDWATER GRAPHS  
JANUARY 2014

PROJECT NO: 2013-02  
FIGURE 4

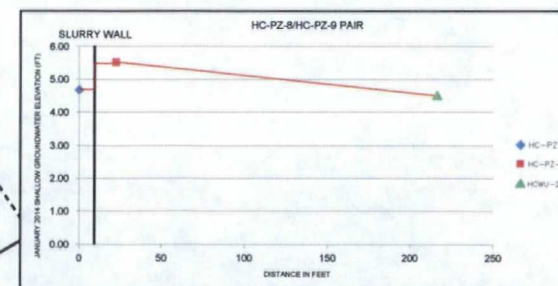
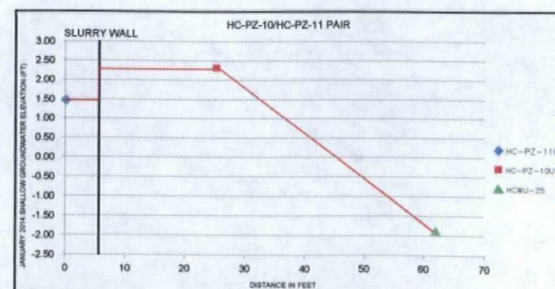
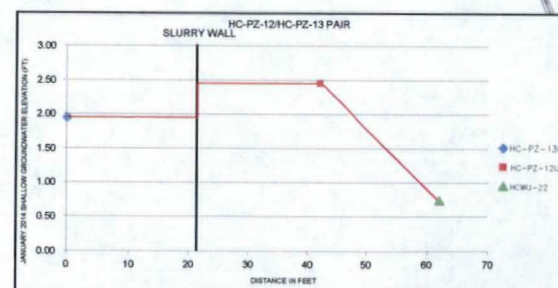
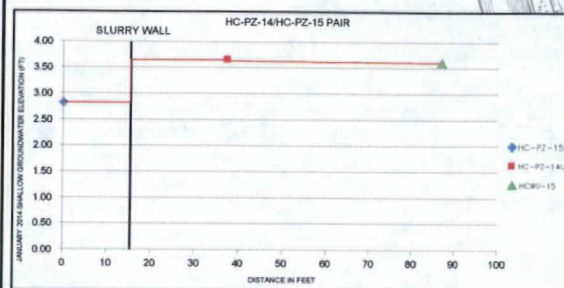
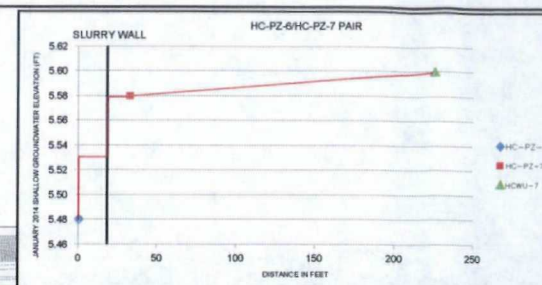
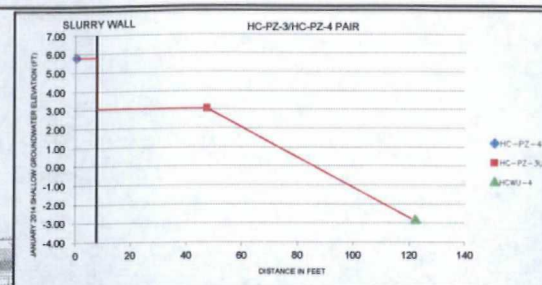
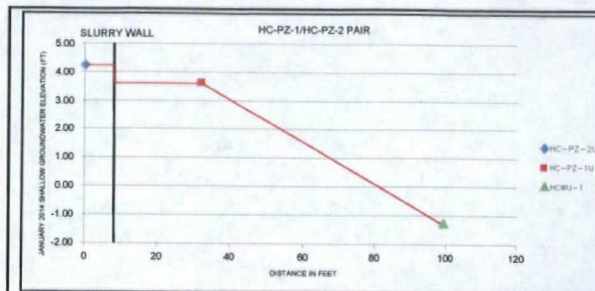
ISSUE DATE:	
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200 THIRD AVENUE  
CARNEGIE, PA 15106

△			
△			
△			
REV #	DATE	DESCRIPTION	APPROVED

REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).



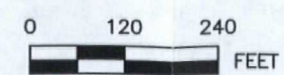


- ### LEGEND
- EXISTING ACCESS ROAD
  - EXISTING NEW JERSEY TRANSIT RAILROAD (ACTIVE)
  - EXISTING FENCE
  - EXISTING WATER LINE
  - EXISTING STORM DRAIN
  - EXISTING STORM SEWER
  - EXISTING GAS LINE
  - EXISTING OVERHEAD POWER LINE
  - PROPERTY BOUNDARY
  - EXISTING CONCRETE PAD
  - EXISTING GROUND SURFACE ELEVATION CONTOURS
  - EXISTING VEGETATION
  - EXISTING STREAM, POND AND RIVER BANK
  - EXISTING ELEVATION (FEET-MSL)
  - EXISTING STRUCTURE
  - SLURRY WALL LOCATION
  - STEEL SHEET PILE WALL LOCATION
  - FILL UNIT GROUNDWATER EXTRACTION (HYDRAULIC CONTROL) WELL LOCATION
  - FILL UNIT DNAPL RECOVERY WELL LOCATION
  - SAND UNIT DNAPL RECOVERY WELL LOCATION
  - HC-PZ-9U HYDRAULIC CONTROL PIEZOMETER UPPER ZONE (APPROX.)
  - HC-PZ-9L HYDRAULIC CONTROL PIEZOMETER LOWER ZONE (APPROX.)

NOTE: HCWU-3, 7, 8, 9, 11, 12 AND 13 WERE OFFICE AT THE TIME OF WATER LEVEL MEASUREMENTS.

REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).

REV	DATE	DESCRIPTION	APPD



DRWN: SCC

CHKD: RMW

APPD: JSZ

SCALE: AS SHOWN

DATE: 05/01/14

DATE: 05/01/14

DATE: 05/01/14

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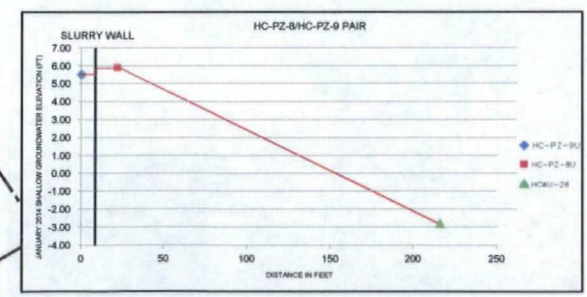
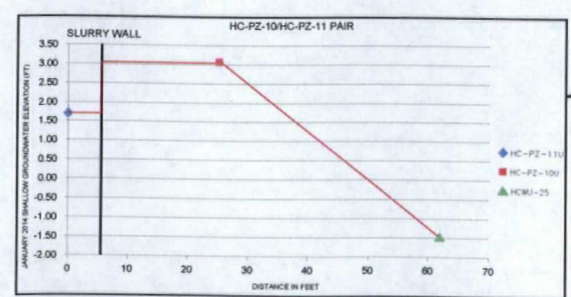
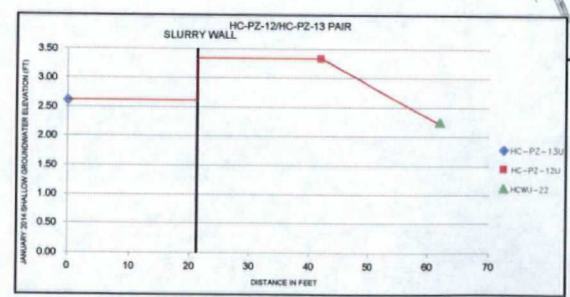
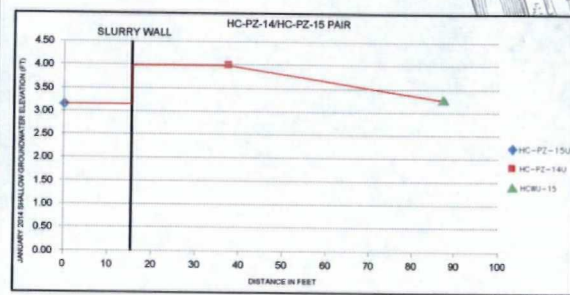
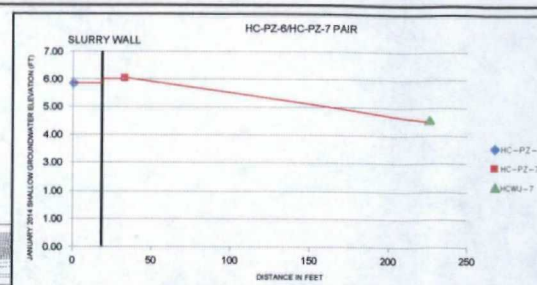
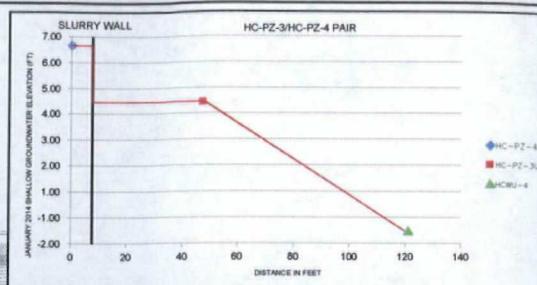
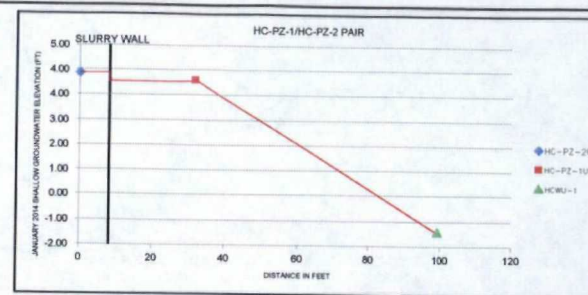
SCCC SITE  
KEARNY, NEW JERSEY

GROUNDWATER GRAPHS  
FEBRUARY 2014

PROJECT NO: 2013-02  
FIGURE 5



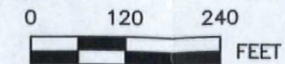
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- ### LEGEND
- EXISTING ACCESS ROAD
  - EXISTING NEW JERSEY TRANSIT RAILROAD (ACTIVE)
  - EXISTING FENCE
  - EXISTING WATER LINE
  - EXISTING STORM DRAIN
  - EXISTING STORM SEWER
  - EXISTING GAS LINE
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  - EXISTING CONCRETE PAD
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NOTE:  
HCWU-7, 8, 9, AND 11 WERE OFFICE AT THE TIME OF WATER LEVEL MEASUREMENTS.

REFERENCE: EXISTING GROUND SURFACE CONTOURS PER AIR SURVEY, DULLES, VIRGINIA, APRIL 14, 2001. HORIZONTAL REFERENCE: NEW JERSEY STATE PLANE COORDINATES (NAD 1927). VERTICAL REFERENCE: NATIONAL GEODETIC VERTICAL DATUM (NGVD 1929).



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APPD: JSZ	DATE: 05/01/14
SCALE: AS SHOWN	
<b>KEY ENVIRONMENTAL INCORPORATED</b>	
SCCC SITE KEARNY, NEW JERSEY	
GROUNDWATER GRAPHS MARCH 2014	PROJECT NO: 2013-02 FIGURE 6

REV	DATE	DESCRIPTION	APPD